

Microbiological Associates
5221 River Road
Bethesda, Maryland 20016

Smoke Inhalation Carcinogenesis Studies in Mice.

The work on CTR-22 will consist of two primary aspects during the new contract year (July 1976-June 1977): Dosimetry and Inhalation Studies.

The proposed dosimetry studies in collaboration with Oak Ridge National Laboratory include study on the Walton and SEM II as summarized below.

With Walton Smoking Machine

1. Completion of Present Studies
2. Deposition as a Function of Adaptation
 - a. Non-Adapted
 - b. Two cigarettes
 - c. Short-term Adaptation 10 Cigarettes/Day
 - d. Maintained 1 Month on 10 Cigarettes/Day

With SEM II

1. Determine Experimental Design for Dosimetry Studies
2. Exposure Time
3. Smoke Concentration
4. Smoke Flow Rate
5. Age of Smoke
6. Relative Humidity
7. Animal Contaminant System
8. Characteristics of Various Cigarette Types

Inhalation studies on both the Walton and SEM II will be conducted during this contract year. The Waltons are being used to carry out a study in which carcinogen loaded cigarettes will be used. The SEM II machines will be used to carry out acute toxicity studies, as well as tolerance/adaptation measurements.

Activation Date: July 1, 1976

Current Contract Level: \$900,000.

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